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CLINICS.

HOSPITAL NOTES AND GLEANINGS.

Excision of the Entire Scapula.—On Saturday last, after the operations were ended at King's College Hospital, Mr. Fergusson had the opportunity, through the kindness of Mr. Jones, of showing to the pupils the case in which this surgeon had performed the operation of excision of the scapula, with a portion of the clavicle, at the Jersey Hospital in May last. The patient, who is a remarkably healthy-looking young woman of sixteen, hardly presented any indications of having had such a formidable operation performed, as she walked into the theatre, carrying her head erect, and her arm in almost the natural position. On examining the parts it is found that the head of the humerus has formed for itself a new attachment, just below and in front of its natural situation. The upper arm itself is well developed, the limb measuring just nine inches in circumference, that on the other side being half an inch larger. There is very considerable motion in the new joint; the patient can carry her arm to an angle of 45° from her body outwards; she can throw her arm across her body in front, carrying her hand to her mouth and to the opposite ear. She can throw her arm behind her, resting the forearm horizontally across her back; the movement of her hands are natural, she can knit, sew, and perform other useful occupations. Mr. Fergusson, in the course of some remarks, observed that it was the only living instance he knew of where an operation of a similar kind had occurred. It was impossible to come to any other conclusion than that the case was most successful, and one of the greatest triumphs of modern surgery; and its issue reflected the greatest credit upon the surgeon who ope-

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rated. There were some who might criticize, the success of the case, inasmuch as certain muscular movements were not so free as might be anticipated; but it was to be borne in mind that only a few months had elapsed since the operation was performed; moreover, it was undertaken to save life; this had been effected, and, in addition, a useful arm was preserved to the patient.—*Med. Times and Gaz.*, Dec. 25, 1858.

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A Practical Point in Amputation of the Leg.—Lately a man, whose left leg had been amputated, was admitted into the Royal Free Hospital. The foot, having been crushed some twelve years previously, was then removed at the ankle, and subsequently amputation was performed in the lower third of the leg. When admitted, owing to retraction of the posterior flap, the tibia was protruding, and the sharp margin of the truncated bone projected forward through the skin. Mr. Gant amputated the leg high up through the fleshy belly of the gastrocnemius, and sawed off the bone obliquely from before backwards, so as to allow the anterior flap of skin to rest upon a flat surface of bone. The vessels having been divided near their origin from the popliteal, many ligatures were required to suppress the hemorrhage. After the operation it was remarked that the tibia was the only bone in the body which, being subcutaneous, was involved in an amputation, and that therefore it would be a good rule always to saw that bone obliquely from before backwards, and thus avoid the probable occasion of a second amputation. In due time the man left the hospital with a sound and well-covered stump.—*Lancet*, Jan. 15, 1859.

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Recurrent Fibroid Tumours.—Mr. Paget, in his admirable account of the recurrent fibroids, in his Lectures on Surgical Pathology, notices the exceeding tendency of these tumours to local recurrence. The result of a case reported at page 189 of this journal for August, 1855, has just come to our knowledge, and is of much interest in relation to this point. A man, aged 30, was under Mr. Stanley's care in St. Bartholomew's for a recurrent fibroid growth in front of the left patella. It had been excised seven times; and had always returned very quickly, and grown rapidly. At the last excision, Mr. Stanley made a very careful dissection, and removed the growth very widely. It was, indeed, with difficulty that wounding of the synovial membrane of the joint was avoided. The wound healed, and the man left the hospital. Mr. J. Morris, who was House Surgeon at the time, informs us that he accidentally met the man in the street the other day, who informed him, with great delight, that he had remained quite free from any sign of the return of his old enemy. He is now in excellent health, and the scar quite sound. Here, then, we have a period of more than three years passed over by a tumour which had before recurred seven times at intervals varying from two to five months.—*Med. Times and Gaz.*, Nov. 27, 1858.

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Successful Case of Amussat's Operation for Artificial Anus.—A case now under Mr. Hutchinson's care as an out-patient of the Metropolitan Free Hospital, affords an interesting illustration of the occasional value of Amussat's operation. The bowels had been obstinately constipated for three weeks and eleven days; in spite of the use of free enemata, neither feces nor flatus had been got away. The obstruction was caused by the pressure of a large malignant tumour which completely filled the upper part of the pelvis. The abdomen was greatly distended, and the pain and vomiting were almost incessant. The patient being evidently about to sink, Mr. Hutchinson determined to open the colon in the left loin. This was done without wound of the peritoneum, and a large utensil full of fluid feces escaped at the time. An artificial anus was established, through which ever since the bowels have been freely relieved. More than a month has now elapsed since the operation. The malignant tumour continues to grow rapidly, and will before long cause the patient's death. It is worth mention, that the inconvenience caused by the anus in the loin has been very trivial, a poultice over the part being found quite sufficient to prevent the incontinent escape of gas or fecal matters. If proof of the need which existed for another mode of relief, is the fact that neither flatus nor feces have passed by the rectum since the operation. The same case is of much interest as an instance of a return of cancer in the pelvis after ovariotomy. Probably not fewer than between three and four hundred

ovariotomy operations have now been performed, and as far as we are aware no other instance of the return of cancer afterwards has yet been recorded. The patient made a good recovery after the extirpation of the ovarian cyst, and regained her health and strength. Within three months, however, there were evidences of a solid pelvic tumour, which afterwards grew rapidly.—*Med. Times and Gaz.*, Jan. 1, 1859.

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The Metallic Seton.—As wire is replacing silk and other organic materials for sutures, so it is likely to be used in cases where a seton is used for the purpose of setting up inflammation in serous sacs. Dr. Simpson has used the wire seton with success in hydrocele, and his practice has been followed in London by Mr. Spencer Wells. The first case in which he tried it was one of hydrocele of the round ligament in an out-patient at the Samaritan Hospital. The cyst was of the size of a small orange. It had existed several years, and had been mistaken for hernia. Mr. Wells tapped it the first day the woman applied, and evacuated more than an ounce of clear serum. It filled again in a few days, and he then passed an iron wire through it by means of a common needle, and fastened it loosely in a loop. The fluid drained off, adhesive inflammation was set up, and the wire removed on the third day. The tumour remained quite solid for a few days afterwards, but has gradually disappeared, and the cure appears to be complete. Two other cases, one of a cyst in the neck connected with the thyroid gland, and the other a mammary cyst, have been treated in the same way, and are going on satisfactorily. This mode of treatment is simpler and safer than the injection of iodine, and will probably prove equally or more effectual.—*Ibid.*

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Hysterical Pain in the Knee.—At St. Bartholomew's Hospital, Mr. SKEY has under his care a curious and instructive case of hysterical pain in the knee. The patient is a girl of seventeen, who was admitted on the 30th of December, with a most agonizing pain situated in the left knee-joint, which had existed for five weeks. The slightest touch caused her to cry out, and she evinced great anxiety and fear even before the limb was actually examined. With this dreadful pain, there were no symptoms whatever of any real mischief going on in the articulation itself. She had not menstruated for three months, but was otherwise healthy, though of delicate complexion and nervous temperament. Mr. Skey had the girl well supported with wine and good nourishing diet, and an opium lotion was ordered. This treatment seems to have greatly mitigated the pain. Every surgeon is aware that in women the hysterical condition gives rise to an amount of pain which is never present as the actual result of organic disease itself. In this girl, who was under the impression that something very active was being done for her, the pain has subsided, and the joint still retains the natural and healthy condition which it had on her admission. A cradle was at first used to protect the joint; it is now dispensed with, and the weight of the clothes upon it is borne without inconvenience.—*Lancet*, Jan. 15, 1859.

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Cure of Sterility by Division of the Cervix Uteri.—It is not uncommon to meet with women who have been married several years—who, like their husbands, are very anxious for a family—but who have never conceived. Such women often suffer extremely from dysmenorrhœa, and probably did so before marriage. This, in many cases, depends upon contraction of the canal of the cervix uteri—either at one part, or through its whole extent. When this is the case, division of the cervix by Professor Simpson's hysterotome is sometimes almost immediately followed by conception. A case in point was seen last week at the Samaritan Hospital. A woman had been eight years married without family, and as she had dysmenorrhœa, and the canal of the cervix was so narrow that a small sound passed with difficulty, Mr. Spencer Wells divided the cervix on both sides freely quite through. An oiled cotton plug was used for some days, and the woman was lost sight of. This was two years ago; but she brought a child thirteen months old to the hospital last week. Conception followed the operation so rapidly that we may look upon it as the effect, especially as the case only bears out Dr. Simpson's previous experience.—*Med. Times and Gaz.*, Jan. 1, 1859.

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A Group of Ovariotomy Operations.—During the past year twelve cases, in which ovariotomy was either attempted or per-

formed, have been put on record by London surgeons. As far as the writer is aware, they comprise all that have occurred, during that period, to the following surgeons: Mr. Brown (2), Mr. Childs (1), Mr. Erichsen (1), Mr. Hutchinson (4), Mr. Wells (4). We may, therefore, fairly group them together. Of the twelve, eight recovered and four died; seven are still living, and of these six are, as far as is known, in excellent health. The one which has ended in death, after having recovered from the operation, is a case in which the tumour was not removed. In two cases the tumour was not removed, one of the patients dying a fortnight afterwards, and the second within four months. In eight cases the end of the peduncle was brought out externally, and of these six recovered. In two, the old practice of leaving the end of the peduncle and the ligatures in the abdominal cavity, was adopted, and of these one recovered and one died. In all the cases, the tumours were polycystic, and in several they contained colloid material. In only two were no adhesions encountered, and in several very extensive and firm bands had to be broken through. When we add that the cases have not by any means been selected ones, and that in several instances the patient was in very much reduced health, it may readily be granted that this summary offers a very encouraging contrast with the results of the old method of operating.—*Ibid.*

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Irritable Ulcer of the Rectum.—We lately saw Mr. Fergusson treat an irritable ulcer of the rectum in the same manner as he is in the habit of doing in fissure of the anus. The patient was a young female, who had been an inmate of King's College Hospital, and was a great sufferer from an ulcer situated close to the margin of the anus, but involving more particularly the mucous membrane of the rectum. This ulcer was divided across with a blunt-pointed bistoury, the knife at the same time cutting some of the fibres of the sphincter itself. This course has proved very satisfactory, resulting in complete freedom from pain, and healing up of the sore.

A mere fissure of the anus, or a small ulcer within the rectum, as is well known, produces a most intolerable amount of suffering and misery; and it is as well to bear in mind, that a section of the ulcer, with a few fibres of the sphincter in the former, and a partial division only of the latter, will effect a cure. The fissure sometimes is so small as almost to escape detection, but when it is observed, the treatment is obvious. —*Lancet*, Jan. 22, 1859.

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Condy's Fluid in Ulcerated Surfaces.—This fluid, which consists of half a drachm of the permanganate of potass to a pint of water, is being extensively tried at the Middlesex Hospital, by Mr. HENRY and others, in cases of burns, large ulcers, and suppurating surfaces arising from any cause, especially where the secretions are not only copious, but at the same time offensive. A case of very severe burn about the body and thighs of a female, admitted on the 2d of October, is doing well with Condy's fluid. She had carron oil applied the first day, and Condy's fluid was commenced on the fourth day, with immediate relief to the pain. This fluid prevents any fetor arising from suppuration. It was employed in two or three instances of cancer of the breast, from which there had been a very foul discharge; also in obstinate ulcers of the leg, and apparently with benefit.—*Ibid.*, Jan. 1, 1859.

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Rupture of the Small Intestine.—Alfred Henley, aged 8, was admitted into St. Thomas's Hospital, September 28, 1858, at half-past seven P. M. One wheel of a light cart had passed over his body. He got up after the injury and ran away so fast that a policeman overtook him with difficulty, and when admitted half an hour subsequently had only slight pain across the belly. There was no tenderness, and no external sign of injury; the face was pale and wore a terrified look, but there was no other sign of collapse. About eleven P. M. pain had increased, and there was tenderness in the hypogastric region. Breathing thoracic; pulse 108. Slept but little during the night; pulse became slower and more feeble towards morning; the extremities became cold, and he died seventeen hours after the accident. He took some arrowroot and bread and butter early in the morning, and a little wine. At the post-mortem examination the small intestine was found to be ruptured completely across about the point where the duodenum passes into jejunum. About two pints of brown fluid containing food were extravasated into the abdominal cavity. The small intestine and mesentery in the neighbourhood were glued together

by peritonitic exudation; the other viscera healthy.—*Med. Times and Gaz.*, Nov. 27, 1858.

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Recent Strabismus cured apparently by the Removal of Necrosed Bone from a Whitlow.—The influence of peripheral sources of irritation upon the nervous system is well known. Teething and convulsions, lumbrici and epilepsy, are familiar examples as regards the great centres themselves. Instances of the sympathetic affection of single nerves, or of isolated groups of muscles, although less frequent, are by no means uncommon. We mentioned, two months ago, a case confirmatory that tenia in the intestine sometimes cause a circumscribed patch of alopœcia on the scalp, and a severe but localized headache. Strabismus in young children sometimes supervenes apparently in connection with worms. The subjects of the curious manifestations of nervous sympathy are, however, almost always either children or delicate women, in whom the cerebro-spinal system is peculiarly susceptible. The following case exemplifies the occurrence of a squint, in an adult man, seemingly in consequence of the irritation caused by a whitlow. At any rate, the squint came on coincidently with the necrosis of the terminal phalanx of one finger, and was wholly cured by the removal of the dead bone.

Owen Jones, aged 37, applied at the Royal London Ophthalmic Hospital, September 24, 1858, for advice about his left eye. He gave the following account of his case:—

Seven weeks previously a whitlow came on the last phalanx of the thumb of his left hand; this was followed by inflammation of the lymphatics, and the gland above the elbow and those in the armpit became enlarged and very tender. The whole arm was very painful. While the limb was in this condition, one morning, on getting up, he found that he saw double, and had a squint in his left eye; this induced him to come to the Ophthalmic Hospital. It was found that he had complete paralysis of the ext. rectus muscle, and could not turn the eye out beyond the middle line. He also complained of severe circumorbital pain. He was directed to poultice the whitlow, which had burst; to foment his arm, and keep it up in a sling, on the supposition that the pain about the orbit and the paralysis of the outer rectus might depend on periosteal inflammation. Iodide of potassium was prescribed, which he took till November 23d, without any improvement of the eye. The enlargement of the glands in the armpits and above the elbow, and the swelling of the arm, had quite subsided. A loose bit of dead bone could be felt through a sinus on the under surface at the end of the thumb. It was extracted with a pair of dressing forceps.

30*th*. He states that all pain in the arm, and about the orbit, left him soon after the removal of the dead bone. The squint also disappeared. He can turn the eye out till the margin of the cornea nearly touches the canthus. It is only when he looks to his extreme left that he sees double.—*Med. Times and Gaz.*, Jan. 29, 1859.

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MEMOIR.

Report on Anæsthesia and Anæsthetic Agents. By R. M. Glover, M.D., &c. (Concluded from p. 23.)

No. 5. That chloroform kills in many cases by suddenly arresting the pulmonary circulation is my first proposition; and I believe that the opinion which Sir John Fife and myself formed of the cause of death in the first fatal case—viz., that of Hannah Greener—is substantially correct. That this sudden engorgement may be a sufficient cause of death, I conceive cannot be doubted by those who have seen the appearances in animals killed with chloroform. It will be seen by a perusal of the fatal cases which I have given, that many observers speak of this congestion in several of the cases as something enormous. Of the power of many substances to arrest the circulation through the pulmonic capillaries when injected into the blood, the experiments of Mr. Blake afford proof as well as those of my own. I have produced death in this way by many other substances as well as chloroform; but chloroform and its class far surpass any other bodies in this respect, although there are many which act very speedily. I quote the following from my old experiments with a body analogous in its action and as an anæsthetic to chloroform—viz., the Dutch liquid, or chloride of olefiant gas, because it bears upon some other points as well as the singular property

which these bodies have of producing great congestion of the lungs:[1]—"*Experiment* 53*d*.—Thirty minims of the chloride of olefiant gas were introduced into the jugular of a small, but lively mongrel dog, eight months old. Immediately the animal commenced a series of short, barking yells, each of which was synchronous with expiration. Before the operation the respirations were 48; after it they became 68 in the minute; expiration made with great effort of the abdominal muscles. The heart's action was quickened and irregular, but masked by the state of the respiration. From the first he lost all power of locomotion, but retained consciousness. In twenty minutes, his chest being pressed, with a view to auscultation, he redoubled the barking yells. He was now placed near the fire, where he remained lying on his side, the eyelids at first half closed. Large bubbles could be heard in the chest, and there was a clacking noise in the mouth proceeding from movements of the soft palate." The respirations became more and more frequent for a time, continued bubbles could be heard in the chest, then the respirations became slower, and the animal heat visibly declined, the thermometer at the third hour, a little before death, marking only 63° in the axilla, 72° in the groin, and 82° in the rectum. On inspection, the lungs resembled one vast apoplectic spot. The loss of animal heat has been remarked, both in experiments with the vapour of chloroform on animals, and in fatal cases in the human subject. This is probably due to the suspension of the pulmonary functions in a sudden manner. It has also been noted in many cases that the respiration ceased before the circulation; and it will be seen in how many cases great congestion of the lung, and loading of the right side of the heart and great veins with black fluid blood, are spoken of as leading appearances at the post-mortem examinations. In other cases the symptoms and post-mortem appearances point to syncope from paralysis of the heart as the cause of death, and, as Dr. Snow remarks, when speaking in his posthumous work on this subject, my old experiments show that chloroform can do this. Again, the tetanic spasms in some of the cases, and convulsive movements, like those in epilepsy, show that chloroform exerts a potent action in some cases on the nervous system, and may paralyze the brain and spinal cord. According to Flourens, when chloroform kills by its direct action on the brain and spinal cord, it is by paralyzing the medulla oblongata, which is closely connected with the nerves of the respiratory system, and is the last part of the nervous system to submit to the action of chloroform. The cerebral lobes and cerebellum appear to be first affected, then the annular protuberance and centres of perception and common sensation, the spinal cord, and, at last, the medulla oblongata. This action on the organs of the nervous system is generally progressive, but not always so; sudden death may be owing to deviations from the common course. Perhaps the congestion so often observed in the lung may be due to the action exercised on the extreme fibres of the pneumogastric nerve and other nervous fibres. The first feeling of heat and irritation may be due to the contact of the vapour with them, because the application of chloroform to other nerves causes pain at first, and then paralysis; afterwards these nervous filaments may lose their power, and hence may result accumulation of mucus, imperfect hæmatosis, and cessation of the *besoin de respirer*. In considering the power of the agent to produce a fatal result, it must be borne in mind that the effect of any derangement of the economy is in relation not merely to its actual extent, but to the rapidity with which it is produced. An amount of lesion which can be borne if it take place gradually, may be fatal if suddenly inflicted.

There are two or three things which are especially worthy of attention in reviewing the record of fatal cases of chloroform administration. One is the fact, that a large proportion of the patients appear to have been in perfect health. From no outward sign could any indication be derived as to whether the patient was fit or unfit for the use of chloroform.[1] Another is the fact, that in some cases the fatal effect was produced by a very small dose. In the Bou-

[1] Edinburgh Medical and Surgical Journal, October, 1842.

[1] There are a few cases in which fatty heart and other organic affections may have rendered the patient more susceptible to the influence of the drug; but the fact remains that in the greater number of cases the cause of death cannot be accounted for either by the state of the patient, or, as I believe, by the dose of chloroform, or the mode of its administration. There remains only one thing—viz., a peculiarity on the part of the individual constitution.

logne case, fifteen or twenty drops; in the Langres case, a gramme! The direct inference from these facts is, that it is utterly impossible to do away with the occasional risk of chloroform. Deaths have occurred, too, where Dr. Snow's inhaler was used. A third fact is, the singular one, that most of the deaths are in cases of slight operations. Such I anticipated would be the result when I stated at the inquest on Hannah Greener that I believed most of the deaths would be found in slight operations; and it is astonishing how many are in cases of tooth-drawing and such like, or in cases where no operation at all was performed. I believe the stimulus of the knife and the loss of blood both likely to have a tendency to prevent a fatal result. The absence of death during midwifery practice from the use of chloroform might appear to oppose this view; but the anæsthesia there is seldom required to be so deep as in ordinary surgery. Patients are generally kept in a kind of doze or stupor. I state, however, the facts as they appear to me, and leave others to form their own conclusions. If I am right, then the responsibility of using chloroform in slight operations is doubly increased.

Nothing is more surprising than the extraordinary extent to which chloroform has been given, and the comparatively small number of fatal cases contrasted with the deadly results in those cases in which it has caused death. We cannot account for this in any other way than by ascribing the fatality to idiosyncrasy—a peculiar susceptibility of some persons over others. Look at such a fact as that, in the extensive use of chloroform made in the French Military Hospitals in the East, there was not a single fatal result. Its utility both in alleviating pain directly in operations, and in relieving the sufferings of the wounded, or in depriving the death-bed of agony of half its horror, was admitted.[1] The object here is not then to depreciate the merits of chloroform, but to state the true position of the questions concerning its use.

In considering, too, the deaths from chloroform in reference to their bearing upon its value, an argument which is well stated by Dr. Simpson should be carefully borne in mind. In a letter on Chloroform in Scotland, he says: "After discovering the anæsthetic effects of chloroform, I was of course anxious to get it tried in a surgical operation. The first surgical cases in which it was used were operated upon in the Royal Infirmary here, on the 15th November, 1847. Two days previously, an operation took place in the Infirmary at which I could not be present to test the power of chloroform; and, so far, fortunately so; for the man was operated upon for hernia without any anæsthetic, and suddenly died after the first incision was made through the skin, and with the operation uncompleted. I know of another case, in Edinburgh, where death instantaneously followed the use of an abscess-lancet, without chloroform, the practitioner, in fact, deeming the operation too slight to require any anæsthetic." But I have known an instance where a dog died of fright in an experiment. I had just cut the skin of the groin before introducing the hæmadynamometer,[1] when the animal, a fat Russian poodle, suddenly died, hardly a drop of blood escaping.

I have not space to enter much into the questions as to the exceptional cases in which chloroform may not be used, or as to the use of it in midwifery. For information on these points the reader is referred to the posthumous work of Dr. Snow, or to my articles in the *British and Foreign Medico-Chirurgical Review*, for January and April, 1852, already mentioned; and I proceed to some other matters.[2]

[1] Relation Medico-Chirurgicale de la Campagne d'Orient, p. 465.

[1] The hæmadynamometer is an instrument first used by Mr. Blake to measure the force of the circulation. A bent tube, containing mercury, is connected, by means of a nozzle, with a blood-vessel. Between the mercury and the circulation, solution of carbonate of soda is interposed, to keep the blood fluid. A graduated scale shows the power of the circulation in depressing the mercury.

[2] The arguments against the employment of anæsthesia in midwifery are, chiefly, the so-called religious objection; that its use is immoral, and apt to excite improper feelings in the patient; that in some cases it renders the use of the forceps dangerous; that it is injurious or dangerous to the patient; and lastly, that it is injurious to the child. The religious objection, from "In sorrow shalt thou bring forth," is about as defensible as a similar plea against vaccination. Dr. Simpson denies the alleged fact on which the second is founded. To the third, he replies that every accoucheur should have enough anatomical knowledge to introduce the forceps without reference to the feelings of the mother. The injurious effects on the mother and child are denied. The summing-up of Dr. Boulason seems the most rational; he recommends the use of anæsthetics generally in painful labour; but in ordinary labour, or where the pain is slight, he hesitates. The surgical cases in which chloroform should not be used, or in which there are considerations which should influence our judgment, are: 1st,

In considering the value of anæsthetic agents, a somewhat curious question presents itself. During an operation the patient often offers signs of feeling—as wincing, or calling out at the use of the knife, and afterwards declares he has felt nothing. Has, then, actual pain been felt, or has he only forgotten it? M. Bouisson established the following categories, under which he ranges all patients under the influence of anæsthesia: 1st. Those who suffer and preserve their intelligence; 2d. Those who lose all sensibility with their intelligence; 3d. Those who preserve their intelligence without suffering; 4th. Those who, in spite of the loss of their intelligence, appear to suffer. The patients of the first class are those who have scarcely respired the anæsthetic vapours, or have improperly respired them, or in whom the slowness of the effect leads us to suppose a peculiarity opposed to the influence of the agent; or, perhaps, the operation has been commenced too soon, and the ether has only had time to exert its primary action on the organism; it has produced excitement, but has not destroyed the ordinary relations between the sensibility and intelligence—the former has been rather exalted than abated. The patients of the second category are in the condition desired for operation. Those of the third class occasionally present some singular phenomena. A curious case is related by Dr. Flagg, of Rhode Island: A gentleman, under the influence of ether, and insensible to pain, was asked by a lady what time it was. He put his hand to his waistcoat-pocket, hesitated a moment, and then transferred his hand to the other pocket, but did not take out the watch. He possessed considerable musical powers while in his senses, and was desired to sing, but made a noise like the howling of a wolf. This gentleman, before being etherised, was told to obey, if he could, what was said to him; and, on recovering, stated he knew all that was said to him, although he could so imperfectly obey. With regard to the fourth category, we can but understand such cases from the analogies afforded by dreams and drunkenness. We may receive in our sleep many odd and painful sensations, see monstrous phantasms, encounter, as we suppose, great dangers, and yet, on awaking, recollect nothing of what has taken place, and be unable to put our sensations together. This is a painful consideration with regard to anæsthetic agents, and should not be without weight as far as their use in slight operations is concerned, especially when the occasional danger is taken into account, and as also the most serious results have occurred in slighter operations.

Nothing can be more difficult than to decide when anæsthesia may not be used at all; but perhaps the following summary of cases, in which, for his own sake, the practitioner should hesitate and be very careful, may be given; for certainly in any such cases a jury would be very likely, especially in the present temper of the public mind, to take a harsh view of the conduct of the administrator:—

1st. Diseases of the heart and nervous centres, when the physical or functional symptoms are advanced, especially where there is intermittence of the pulse.

2d. In patients weakened by anæmia, either from hemorrhage or other causes.

3d. In epileptic patients, or hysterical and nervous females.

4th. In individuals subject to cerebral congestions, or with any symptoms of softening of the brain.

5th. In those who are subject to hæmoptysis or fainting fits.

Lastly. In such as have much dread of anæsthesia.

It may be a question whether a mere hard-drinker is an exception. Many of the patients who have succumbed have been very temperate. In cases of delirium tremens, chloroform has sometimes done good.

Many attempts have been made to substitute other anæsthetic agents for those commonly in use. The number of bodies possessed of anæsthetic properties is very numerous. They may be arranged as follows:—

1. Protoxide of azote, NO.

2. Carbonic oxide, CO; carbonic acid, CO_2.

those which are of short duration and where the pain is trivial; 2d, those which require the active participation of the patient—as, for example, in operating on the rectum—and where particular postures must be maintained; 3d, operations where the sensibility serves as a guide to the operator—as, perhaps, lithotrity; 4th, operations where the object is the production of pain, as in many cases of moxa; 5th, operations where the patient is already insensible. Statistical results are highly favourable, on the whole, to the general beneficial effects of anæsthesia in surgery, and the experience of French surgeons in the East has strikingly corroborated this. Nor does it seem likely that the occasional occurrence of a fatal case will check its *general* use, however much caution may be thus inculcated.

3. Light carburetted hydrogen, CH_2; olefiant gas, C_2H_2.

4. Ethyle series: Alcohol, C_4H_5O+HO; sulphuric ether, C_4H_5O; nitric, $C_4H_5O+NO_5$; acetic ether, $C_4H_5O+C_4H_3O_3$; hydrochloric ether, C_4H_5; Chl. and hydroiodic, hydrobromic and formic ethers.

5. Acetyle series: Aldehyde, C_4H_3O+HO; Dutch liquid or chloride of olefiant gas, and doubtless the corresponding bromide and iodide; monochloruretted chloride of ethyle (see Dr. Snow).

6. Formyle series; Chloroform, bromoform, and iodoform.

7. Compounds of methyle, pyroxilic spirit or wood naphtha, C_2H_3O+HO; rock naphtha, C_4H_5; coal naphtha; formomethylal (uncertain composition); methylal, C_2HO, HO and $2C_2H_3O$.

8. Turpentine, $C_{10}H_8$; benzoyle, $C_{18}H_5$; camphor, $C_{10}H_8O$; creasote, $C_{14}H_{16}O_4$.

9. Bisulphuret of carbon, CS_2.

10. Amylene, $C_{10}H_{10}$.

11. False anæsthetics, as sulphuretted hydrogen, prussic acid, coneine.

12. Mixed bodies, as oleum ethereum, chloric ether.

13. Acetone, C_3H_3O.[1]

Of all these bodies, only three are likely to enter into composition with ether and chloroform; these are the Dutch liquid, amylene, and formomethylal.

The first is the most likely to take the place of chloroform. It is a beautiful, colourless, and volatile fluid, which, in smell and taste, somewhat resembles chloroform. It is, however, more agreeable. I have tried it, and found it answer exceedingly well; and Mr. Nunneley, of Leeds, has especially studied its properties. He found it as powerful as chloroform, and more free from dangerous and disagreeable effects. Animals were quite as completely brought under the influence of the one as the other. Mr. Nunneley used it in several operations with perfect success; but if it can only be obtained at the enormous price which I paid a London druggist for it, its use can never become general. The substance amylene was found to produce perfect anæsthesia. Dr. Snow, after using it in a hundred and forty-four cases with success, had a death from it in an operation for fistula in ano; and, shortly after (July 30, 1857,) another death occurred in the hands of the same practitioner. The substance called formomethylal appears worthy of attention. I tried it on animals with perfect success; but in attempting its preparation in considerable quantity twice, formidable explosions occurred.

On the whole, then, practically, as far as our knowledge goes, the only anæsthetics likely to be of permanent use, are ether and chloroform. Many have proposed the use of a mixture of the two, and different proportions have been recommended. Mr. T. H. Wakley has been in the habit of using equal parts, and, having tried this proportion, upon the whole, I am inclined to prefer it. The substances readily unite in that proportion, the mixture can be inhaled as easily as chloroform, and the combustibility of the ether is diminished by the union. The after-effects, too, appear to be less permanent than those of chloroform. With regard to this point, amongst the after-effects of the last-named body, M. Chassaignac has described what he terms an anæsthetic shivering which occurs in some after the chloroformization, and which may go on into a progressive, and even fatal coldness, if the surgeon does not struggle early and energetically against this fatal tendency. He also observes: "In certain patients the action of chloroform has consecutive effects not far removed, but which, nevertheless, do not produce their peculiarly dangerous consequences until about sixteen, twenty-four, or forty-eight hours. It would seem, in these cases, that the injury done to the vital forces by the chloroform has been so profound that the patient could not recover from it." He succumbs from the stupor and prostration. This chiefly occurs in the old and debilitated. Now, in such cases, the admixture with ether seems less likely to be injurious; and all facts tend to prove the inhalation of chloroform to be more dangerous than that of ether.

With regard to inhalers, Dr. Snow was, as is well known, a strenuous advocate for their use; but deaths have occurred where his own inhaler was used, and in his own hands. My own opinion is, that the simple nose and mouth-piece, with a perforated plate and a sponge, is all that is required. The chloroform can be poured very gradually on the plate, and we have seen that very small quantities of chloroform have produced death, and very large quantities been given with impunity. The great practical guide is

[1] It will be observed how much carbon all the true anæsthetics contain.

to watch the patient, the pulse, but, above all, the respiration.

The various attempts at resuscitation, tried in cases where chloroform seemed likely to produce fatal effects, or where the respiration and circulation have ceased, have been mentioned, and the slight success which has attended them. In the *Lancet* of February 7, 1857, will be found a case, in which, after an operation for tenotomy in a boy four years old, the boy being apparently lifeless, artificial respiration, performed in the ordinary mode, having been tried in vain, Marshall Hall's Ready Method, with sprinkling of cold water and the application of ammonia, were attended with success.

It is not within my province to enter upon the subject of local anæsthesia, nor will the space which can be allotted in this journal enable me to enter more fully upon the subject. For the more general development of my views, and the arguments in their support, I must again be allowed to refer to the articles in the *British and Foreign Medico-Chirurgical Review*, already quoted. The reader, I venture to hope, will there find, at least, that the subject on which I have thus expressed my thoughts, is no new one with me, but has been long and anxiously considered.—*Lancet*, Nov. 6, 1858.

SANITARY AND SOCIAL SCIENCE.

Influence of Occupations on Health.—A writer in a late number (January, 1859) of the *Sanitary Review*, has given some interesting facts relating to this subject, and which are well deserving of attention.

1. *Manufacture of Sand-Paper.*—This occupation, the writer opines, is attended with serious evils. In this occupation the pulverized sand, or pulverized sand and glass, is placed in fine sieves; and, by gentle motion, the powder is equally distributed over paper prepared for its reception. The distribution is done by the hand; and as it is light work, young boys, hardly relieved from leading strings, are employed at it. The result is, that the distributor, from the moment his work commences, is exposed to the inhalation of the irritative dust. A boy was one day brought before us, fatally struck by a chest affection resembling acute pulmonary consumption. On inquiry, we found that the youth, then engaged at the sand-paper business, was in perfect health until the first day he entered on his work. On his return in the evening to his home, he brought with him cough and thoracic pain, which never left him. Quickly the health failed; and when we saw him only three weeks after the commencement of the labour, his chances of life were over. He died within a month. Making further inquiry into this business, we found that this poor youth was the representative of a great class of youths similarly disabled. There were few who ever stood the work. It adds to the shame of these occurrences, that, except in the matter of pecuniary saving in the purchase of young hands, all risk is unnecessary; that by very simple machinery the manufacturer might dispense with the distribution by hand altogether; and that the particles of irritative powder need never be so distributed through the air as to be breathed either by the manufacturers or their assistants.

2. *Walking-Stick Making* is another business which carries with it mischiefs little less serious than the above. The sufferers, however, in this case are men; and the mischiefs induced, as described with great exactness and common sense by one of the sufferers, occur as follow. In order to make common sticks assume various colours and shades, the sticks, when turned and ready for colouring, are gently charred over a coke fire. The men engaged in this department suffer severely from the coke fumes. They grow giddy, lose appetite, and are altogether greatly enfeebled. But more serious danger resides in another stage of the process. The stick having been charred externally, the shading begins. The art of this lies in removing, by a fine rasp and by sand-paper, proper amounts of the charred material. An atmosphere charged with pulverized charcoal is thus produced; and the irritative effect of such inhalation on the lungs of the man, begins almost from the first day of the employment. In the man who came under our notice, the symptoms which had long been present were bronchial, but the mischief was so extensive that his life was clearly shortened by it, and a malady never to be removed was on him. He had constant cough, a flux from the lungs charged with the charcoal particles, and great emaciation. By removing from his work on our suggestion, this man made a partial recovery, and is, we believe, still alive.

From such information as we could gather from this man, we learned that the cough

incident to the occupation is attended in the first instance with considerable acute suffering; but that by and by, as the cough loosens, and as a steady expectoration of secretion charged with the sooty matter takes place, the acute symptoms give way to chronic cough and bronchial flux. "It is all right," said our informant, in referring to the charcoal dust—"it is all right when we can cough it up; if a man get into that way he stands his work for many years; but eventually, the cough always masters us, and so we break down."

The remedy against this evil lies probably with the men themselves. We suggested to our informant that a woollen muffler would be a capital filter and protect effectually. "Very simple, sir," was the reply, "but quite impracticable, 'specially in hot weather, when we feel the dust most."

3. *Hemp and Flax-Dressing* are occupations attended inevitably, as all evidence goes to show, by a series of symptoms, affecting chiefly the bronchial surface, which may be considered specific in kind. We were fortunate, in our inquiries, in having the opportunity of examining an intelligent workman who had been engaged at the business of hemp-dressing and flax-dressing for thirty years; in this time, he had left his work during certain intervals only, in which he had been sick-bound. This man, from the first a sufferer from his occupation, had come into contact, at various times, with many hundreds of men in the same line of life, and he was thus enabled to give us some very correct and extended information. He was quite unbiassed in his narrative; he had great respect for his employers; and so conscientious was he in his statements, that he paid us a special call to correct a slight error into which he thought he had fallen. The experience of this witness is confirmed by that of two others, engaged in the same business at other manufacturers. The history of the dressing process is somewhat as follows:—

The raw hemp comes mainly from Russia and Poland. These countries send the finer qualities of hemp. But a coarser variety is imported from Naples, and this variety was largely used during the late war. The first step in the process of dressing, consists in drawing the rough hemp through the "hackle," a machine in large manufactories consisting of benches in which are inserted series of pins close together, in the manner of a comb of many rows. The hemp, taken by lengths weighing about a pound, is drawn first by an overhand movement, through a coarse set of the pins, and then by an underhand movement through a finer series. These acts complete the primary steps of the process, and during these steps the men suffer very severely; during the whole time the air is charged with dust and fluff. Some idea of the extent to which the fluff is dispersed, may be gleaned from the fact, that, of every hundred and twelve pounds weight of hemp employed, there is escape and loss of four pounds in the dressing. The Neapolitan hemp is much the most indifferent in this respect.

The man to whom we referred at the opening of this section was a sufferer from the first, from his employment. He never could become tolerant of it; and at no time could remain longer than three hours at his work, without going out of doors to restore himself with fresh air. He was subject to constant irritating cough and constant expectoration, very profuse in amount. In the course of his labours, he assured us, he had never known a fellow-workman who did not suffer from the same affection. In some, however, the cough was dry and husky, and even more trying. In country places the workmen suffer less than in London, and in London the work is much more tolerable in warm and dry weather. During fogs, when the fluff cannot find escape freely by currents of air, and when the air itself is of difficult respiration, the labour is hardly to be borne.

There is another curious fact connected with the hemp business which deserves notice. From the Neapolitan hemp there emanates, spontaneously, an odour of a very irritative character; the inhalation of which causes shortness of breath, constriction of the throat, and spasmodic cough in paroxysms. All workmen with this variety of hemp seem susceptible. To satisfy ourselves on this subject, we obtained a portion of Neapolitan hemp which was assumed to have this quality, and soon experienced in our own proper person the truth of the allegations against it. The symptoms caused by it are those of "hay fever," or like the symptoms produced in some persons by ipecacuan. Nor does the dressing of this hemp remove the mischief; for the symptoms are common to the spinners of the dressed variety, although, from working in

the air, these are much less exposed to the fluff.

Flax-Dressing, which is, in fact, but a continuance of the above process, on a finer kind of hemp, is equally injurious to the workmen, and is even worse, as an occupation, than the dressing of Russian hemp. The loss of fluff in flax-work is nearly the same as in the preparation of hemp.

It is possible that a certain amount of mischief to the lungs must always follow the hemp and flax manufactures. But much of the evil might be avoided by a better ventilation in the manufactory. Ordinarily, in the work-rooms, no effort whatever is made to ventilate, and the fluff deposits in abundance on the floor, whence it is again distributed through the air on the merest movement. The spinners of hemp who work in the open air, are only subject to the special ailment caused by the Neapolitan hemp.

4. *Trimming Manufacture*, in which the fluff of silken fabrics is freely distributed through the work-room, leads to symptoms of a chronic bronchial kind, not unlike, but perhaps less in degree than, those caused by the hemp fluff. A woman from one of these manufactories came before us with profuse expectoration and cough. The expectoration was coloured as if with blood, and this circumstance had alarmed her considerably. On inquiry, we found that the colour imparted to the secretion was really not due to blood, but to some substance of fibrous texture and red tint. We should have thought that the patient was feigning, but for the physical and unmistakable evidence of severe bronchial disorder. The explanation of her occupation on the part of the patient, cleared up all the difficulty. The woman had been engaged in working red silk, and exposed to the silk fluff, which is given off in great quantities during the twisting process in the making of tassels. The sister of this same person worked at the same business, and suffered in the same way. We found, ultimately, that in the small unventilated room in which this woman spent her working hours with her sister, there were three more occupants, engaged in the same pursuit, and paying the same penalty. The business is one which few can bear for more than a few years, while some break down at once. Much depends on the size and ventilation of the work-room.

We cannot here omit noticing a remark made to us by a woman to whom our inquiries were being directed, in relation to the accommodations of women in work-rooms and manufactories. We always "feel the room," said this person, "more than men, because we are put closer together." Why? we asked. "I do not know," was the reply, "but it seems to be an opinion amongst the masters that women can do with less room and put up with fewer accommodations than men." Like our witness, we cannot say why this is the fact; but on better acquaintance with the facts under consideration, we can confirm every word of her remark. Go into a work-room in which ten men would consider themselves half suffocated; change the occupants for women, instead of men, and sure as fate, where the ten men were arranged, fifteen women will be packed. Such perversity is unaccountable, idiotic we may say. But still the fact, still the fact.

MEDICAL NEWS.

DOMESTIC INTELLIGENCE.

American Medical Association.—The twelfth annual meeting of this association will be held in Louisville, Kentucky, on Monday, May 3d, 1859. The secretaries of all societies, and other bodies entitled to representation in the Association, are requested to forward to the Secretary, S. M. Bemiss, at Louisville, correct lists of their delegations so soon as they may be appointed. The Convention of Teachers, invoked by a resolution of the National Association, for the purpose of a general conference upon the best means of elevating the standard of Medical Education in this country, will meet in the same city on Monday, the 2d of April.

Medical Journals throughout the United States are requested to insert the above.

S. M. BEMISS, M. D.
Sec'y Am. Med. Assoc.

Naval Medical Board.—A naval medical board for the examination of assistant surgeons for promotion, and of candidates for admission into the medical corps of the navy, will assemble at the Naval Asylum, on Monday, March 7th. The board will consist of Surgeons W. S. W. Ruschenberger (*President*), L. B. Hunter, J. M. Foltz, and Passed Assistant-Surgeon George H. Howell (*Recorder*).

Philadelphia Medical Society.—At a meeting of this Society held on the 7th of Feb. last, the following officers were elected for the ensuing year:—

President.—R. La Roche, M. D.

Vice Presidents.—John Neill, M. D., G. W. Norris, M. D.

Treasurer.—John J. Reese, M. D.

Corresponding Secretary.—John G. Biddle, M. D.

Recording Secretary.—A. E. Stocker, M. D.

Censors.—Francis West, M. D., Lewis Rodman, M. D., S. L. Hollingsworth, M. D., Edw'd Hartshorne, M. D., D. Paul Lajus, M. D.

Orator.—Edward Hartshorne, M. D.

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Obituary Record.—It is with deep regret that we record the death of Dr. P. C. Gaillard, a few months since elected Professor of the Institutes and Practice of Medicine in the Medical College of the State of South Carolina. He fell a victim to consumption on the 14th of January last, in the prime of life. Dr. G. was a well educated, conscientious, and skilful practitioner, and an amiable, courteous, and honourable gentleman. We condole with our brethren in Charleston on the loss which they have sustained.

—— in Augusta, Jan. 6, 1859, of tetanus, Geo. M. Newton, Emeritus Professor of Anatomy in the Medical College of Georgia.

FOREIGN INTELLIGENCE.

Perineal Section for Stricture of the Urethra.—Mr. Henry Smith, in an article (*Med. Times and Gaz.*, Aug. 21, 1858), thus reprobates this operation:—

"Fortunately for the sake of surgical science, and for those who suffer with severe stricture, the time which has elapsed since the first promulgation of the extraordinary doctrines alluded to, is bringing about that which all the argumentation in the world could not effect; facts are being continually elicited which show that the external division of strictures is no more to be depended upon as a 'complete remedy for the disease,' than any other mode of treatment. Patients whose urethral canals were slit up a few years since, are now going about from one surgeon to another, in as bad a condition as they were before. But this is not the worst part, for while the cases which have recovered from the operation have been prominently laid before the profession, death has been busy with others. Not long since a gentleman with severe stricture came to me from Manchester, and he informed me that he had been alarmed and driven to consult a surgeon, in consequence of the fatal result of an operation performed there some little time before by Mr. Syme. The facts of this terrible case are well known in Manchester. Since then the same surgeon operated upon an old shipmate of an intimate friend of my own, the patient being a distinguished naval officer, in the spring of manhood. Death followed in this instance in the course of a few days. And this unfortunate surgeon has since then lost another patient, also in the spring of manhood, from the same species of operation. It is surely to be expected that these three cases, all occurring within a few months, will be given to the profession in their original nakedness; for the operator has in his published writings led us to believe that the external division of a stricture upon a conductor was not only a complete remedy, but a safe operation. In my opinion, it shows either a gross self-deception or want of principle, to assure a poor fellow who is seeking our best advice, that this operation may be performed without danger. At the moment I write I am attending a gentleman labouring under the worst form of stricture, attended with perineal fistulæ, seeking for relief from his terrible sufferings. After being a long time in the hands of other surgeons, he applied to one of large experience in this city, who at once advised him to be cut, and told him that 'there was no danger whatever in the operation.' It is no wonder that, to use his own words, 'he had nearly talked him over.' This patient, however, consulted another surgeon before undergoing the operation, who knew its dangers, and stated them fairly and honestly. He came into my hands in the same, or in a worse condition, than he was in when he was condemned to be cut; but by the utmost perseverance the very great difficulties which presented themselves have been overcome, and thus there is another instance to prove the utter absurdity of the doctrine that there is no other complete remedy for the worst form of strictures but the knife.

"Internal incision was the fashionable remedy for severe strictures twenty or thirty years ago, now there are few who do not

regard it as an utterly unscientific remedy, and one, except in instances of stricture at or close to the meatus, as utterly useless. External incision has been the fashion of late years, but that operation has reached 'the meridian of its glory,' it will soon become a thing of the past, and the well-educated surgeons of the present and succeeding age will look with astonishment upon the fact, that the external division with the knife of a contracted canal, composed in its healthy state partly of involuntary muscular fibre, endowed with the most exquisite sensibility, and subject to the most exciting causes of disease, was solemnly vaunted as a 'complete remedy' for stricture in its most 'inveterate form.'"

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New Views of the Pathology of Fistulæ.—M. VERNEUIL, a clever hospital surgeon of Paris, who for the last few years has put himself forward as a reformer as regards the history, literature, and language of surgery, now attempts to work a change in the views hitherto held respecting the cause of the permanence of fistulæ. M. Verneuil holds that excreted fluids bathing ulcerated surfaces or wounds do not prevent cicatrization by second intention, and that these fluids cannot alone occasion the formation of fistulæ, having only a secondary influence on such formations. The author thinks that fistulæ persist on account of general, local, constitutional, and anatomical causes which prevent the consolidation of ordinary wounds or ulcers, and that special or mechanical causes have been too easily admitted, without regard to more powerful and common ones. He considers, that to the proposition that certain wounds do not close because they are bathed by a continual flow of liquid, should be substituted the following: The flow of liquid is continual, because of the non-cicatrization of the openings in question. As to the healing of wounds in spite of the constant flow over them of excreted fluids, the author mentions lithotomy, vesico-vaginal fistulæ, intestinal or biliary perforations, tearings of the perineum, wounds of the trachea, &c.

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Discussion at the Academy of Medicine on Tubage and Tracheotomy in Croup.—The discussion upon this topic has been revived at the Académie de Médecine; but as it has chiefly consisted in the repetition of arguments and statements already adduced, we have not thought it necessary to continue its analysis. The result is, however, that the attack made by M. Bouchut upon tracheotomy has proved a most signal failure, the discussion having brought that operation out in far higher relief than it stood in before. The following are the final conclusions voted by a large majority at the Academy: "1. Tubage of the larynx, so far as it has hitherto been employed, does not appear to be sufficiently useful, nor sufficiently exempt from danger, to deserve the approbation of the Academy. 2. Tracheotomy, in the present state of science, is the sole means that can be employed when all hope from the use of medicinal agents has been abandoned." This, it will be observed, is a much more unfavourable resolution with respect to tubage than that originally and too good naturedly proposed by M. Trousseau.—*Med. Times and Gaz.*, Jan. 29, 1859.

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Poisonous Sugar Confectionery.—In the Report of the Analytical Sanitary Commission, published in the *Lancet* of the 20th of November last, the results of the analyses of *fifty* samples of various descriptions of sugar confectionery were made known.

Of these fifty samples no less than thirty-five were adulterated, the adulteration consisting, in many cases, of the addition of DAFF, DUCK, *plaster-of-Paris*, or *sulphate of lime*; others, of flour and starch of different kinds, as *wheat flour*, in *potato* and *sago starches*, and *Indian corn flour*; and in others, of the DAFF, and *starch* or *flour* mixed.

The extent of the adulteration varied in many cases from a fourth or a third, even to three-fourths.

In the number of the same journal for 18th of December last, is given the results of the analyses of the various pigments met with in articles of sugar confectionery purchased in London a few days previously.

On an examination of the above analyses, it appears that one or other of the three varieties of CHROMATE OF LEAD—namely, the pale or lemon chrome, the middle or canary-coloured chrome, and the deep or orange chromate of lead, was detected in no less than *twenty-four* of the forty-four articles of confectionery examined.

That one or other of the three varieties of the BRUNSWICK GREEN was present in *seven* samples, this pigment being a mixture of *ferro-cyanide of iron*, or *Prussian blue*, and one of the CHROMATES OF LEAD.

That in *two* samples the green consisted of a mixture of ARTIFICIAL ULTRAMARINE and CHROMATE OF LEAD, and in *seven* samples of ULTRAMARINE and a vegetable yellow.

That ARTIFICIAL ULTRAMARINE was found in as many as *ten* samples.

That RED LEAD was present in one sample.

That VERMILION CINNABAR, OR BISULPHURET of MERCURY, was discovered also in *one* sample.

That ARSENITE OF COPPER was present in *one* sample.

The other pigments noticed were for the most part *vegetable*.

Many of the articles analyzed were thickly coated over with one or other of the poisonous pigments above named. In some the colour was confined to the surface of the articles; but in other cases it extended throughout them.

In some instances, two, and even three and four injurious substances occurred in the same parcel of confectionery.

These results are surely not a little alarming; they disclose a state of things both dangerous and discreditable—dangerous to the public health, and discreditable to the manufacturers of these articles, and to the government which allows of such practices.

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Deaths by the Bradford Poisonings.—The number of persons now known to have been poisoned by eating the lozenges with which arsenic was mixed at Bradford is 225, of whom eighteen have died. Five or six others are still suffering from the effects of the poison, and the recovery of two of them is doubtful. 136 of the poisoned were adults.

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Revaccination.—M. VLEMINCKX has endeavoured to show the value of this proceeding. His conclusions were drawn from observations made on 1,660 individuals; and they are these: 1. Revaccination of subjects well vaccinated is generally of very little utility. 2. Those who have suffered from smallpox have greater reason to be vaccinated than those who have been already vaccinated. 3. Revaccination succeeds better in proportion as it is practised at a distant period from the insertion of the first vaccination or attack of smallpox. 4. Up to the age of 25 it is generally useless. 5. Between the age of 25 and 35 it produces useful results in a very small number of individuals; without, therefore, entirely proscribing it, we need not urgently press its use. 6. After the age of 35 it becomes really preservative, and consequently is necessary. 7. The revaccination of boys at schools, etc., is useless. 8. The revaccination of soldiers in armies constituted as the Belgian army is also unnecessary.—*Med. Times and Gaz.*, Jan. 15, 1859.

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Electro Chemical Anæsthesia.—Some interesting and important experiments have been commenced by Dr. B. W. RICHARDSON, the author of the Astley Cooper Prize Essay "On the Coagulation of the Blood," on the possibility of producing electro-chemical anæsthesia. A sponge, impregnated with chloroform or tincture of aconite, is applied in conjunction with the positive pole of the battery, and a current being passed through the limb, it is found that the anæsthetic influence of the agent employed may be brought to bear in this way upon the deeper tissues, and profound anæsthesia produced. A public demonstration of this method was given by Dr. Richardson, on Wednesday last, at the Grosvenor-place School of Medicine, and the results were satisfactory as indicating the production of deep-seated anæsthesia; but the time occupied to effect insensibility was very inconveniently protracted. The further result of these experiments will be watched with interest.—*Lancet*, Feb. 5, 1859.

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M. Flourens' Nœud Vital.—On this point M. Flourens gives the Academy some fresh details. From these it would seem that the *nœud vital* (that is to say, the portion of the medulla oblongata comprised between the foramen cæcum above, and the point of junction of the posterior pyramids below), is double, being formed of two lateral parts, either of which may supply the place of the other. In fact, one of these halves may be completely isolated, and yet life remain. For the destruction of life both halves must be divided, and each for an extent of 2½ millimetres. Some physiologists having taken the V of gray substance for the vital point, M. Flourens desires to rectify the error: he asserts that this gray substance has no part in the *nœud vital*, and may be removed without injury to the animal.

Salts in the Blood.—M. ROBIN has been experimenting on this subject, and he finds, that the proportion of salts in the blood during life varies in a notable manner; that it is augmented particularly when alkaline salts are administered for some time in doses which do not cause a purgative action; that in such doses, when they pass into the circulation without exciting purging or vomiting, those of the salts which are alkaline, neuter or slightly basic, are incapable of absorbing oxygen, act as if by diminishing combustion—they make the circulation slower, lessen animal heat, and, according to the dose, are calming and asthenic.

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Smallpox at Geneva.—A very malignant form of smallpox is said to be prevalent at Geneva. It more particularly attacks children, and adults under forty years of age; persons of greater age, however, do not escape, but with them the disease is confined to an eruption of small pimples. With younger persons, these assume the aspect of black pustules, having some of the characteristics of the old plague. Revaccination is being practised to a considerable extent.—*Lancet*, Feb. 5, 1859.

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Wind of a Shot.—In our number for July last, p. 111, we alluded to the common error as to the effect of the wind of shot. M. PELIKAN, a Russian, has made some curious observations upon the contusions supposed to be produced by the wind of passing balls, which confirm the views already stated. Mr. P. applied to the committee on artillery of St. Petersburg, and having obtained some pieces of large calibre, had a machine constructed for measuring the force exerted by the wind of balls passing at various distances. The results obtained were constantly the same. At the distance of three inches, a passing ball produced not the slightest effect. The conclusions deduced by M. Pelikan are: 1. A projectile passing very close to any object exercises only an insignificant influence upon it. 2. That what is called the wind of the ball, even with a full charge of powder, has so trifling a force as to be incapable of determining any lesion.

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The London Hospital.—During the year 1858, 1205 cases of fracture were treated in this hospital.

Swiney Prize.—This has just been awarded to Dr. TAYLOR for his work on Medical Jurisprudence.

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Erection of a New Hospital in Vienna.—The Emperor of Austria has just granted a large extent of crown lands for the erection of a new hospital, which is to contain at least 1,000 beds. The patients are to be admitted without any reference to nationality or religion, and the hospital is founded in honour of the birth of the Crown Prince, the Emperor's eldest son.

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Vestiges of Creation.—Mr. Robt. Chambers repudiates the authorship of this work, ascribed to him in the catalogue of the British Museum.

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Zoological Society Dinner.—On the 21st of January last, a remarkable dinner took place at the Albion, Aldersgate Street, to inaugurate three additions to the British bill of fare. A select party of the Zoological Society, Professor OWEN in the chair, met for this purpose; and a very novel repast was arranged under the direction of Mr. Mitchell, Secretary of the Zoological Society. The *pièce de resistance* was Eland, a South African antelope, first introduced by the late Earl of Derby, and now for the first time fatted for the table by Lord Hill. Joints had been sent to her Majesty, to the Emperor of the French, to the Zoological Society, etc. Messrs. Staples dressed it in two ways; it proved excellent in each. A new species of grouse, the TREE GROUSE from America, was the next novelty, and with CORTON to support it, was highly approved; but a wild goose from the Faroe Islands enlisted the tenderest sympathies of the company from its surpassing excellence. Yet another novelty titillated the palates of the party—Haddock soup! "first-rate," was the general exclamation!—*Med. Times and Gaz.*, Jan. 29, 1859.

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OBITUARY RECORD.—Died, in Dublin, January 19, 1859, Sir JAMES PITCAIRN, M.D., Inspector-General of Hospitals, in the 83d year of his age.

—— in London, on the 20th of January, Mr. ALEXANDER, Surgeon Oculist to the Queen, aged 76. Mr. A. was known as a dexterous and successful extractor of cataract, which operation he always performed without an assistant.